CITY OF GLENDORA 2011-2012
Los Angeles County Municipal Storm Water Permit (Order 01-182)
Individual Annual Report Form
Attachment U-4

e) How many times were all Priority A basins cleaned last year? N/A

f) How many times were all Priority B basins cleaned last year? N/A

g) How many times were all Priority C basins cleaned last year? A minimum of 2 times. Staff inspect each basin prior to a threat of rain and remove trash if found 2

h) How much total waste was collected in tons from catch basin clean-outs last year? Approx. 1 ton

i) Attach a record of all catch basins in your jurisdiction. This shall identify each basin as City or County owned, and Priority A, B, or C. For all basins that are owned and operated by your agency, include dates that each was cleaned out over the past year. The County of Los Angeles cleans Glendora's catch basins, dates of cleaning are included in their summary. Attachment E is a map of all our catch basins as well.

j) Did your agency place and maintain trash receptacles at all transit stops within its jurisdiction. Yes ☒ No ☐

k) How many new trash receptacles were installed last year? 4

l) Did your agency place special conditions for events that generated substantial quantities of trash and litter including provisions that:

(1) Provide for the proper management of trash and litter generated from the event? Yes ☒ No ☐

(2) Arrange for temporary screens to be placed on catch basins? Yes ☐ No ☒

(3) Or for catch basins in that area to be cleaned out subsequent to the event and prior to any rain? Yes ☐ No ☒

m) Did your agency inspect the legibility of the catch basin stencil or labels? Yes ☒ No ☐
What percentage of stencils were legible? 100%

Municipal Public Agency Training

Sign-In Sheet
Wednesday, June 6, 2012

NAME	CITY	DEPT	PHONE – E-MAIL
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Municipal Public Agency Training

Sign-In Sheet
Wednesday, June 6, 2012

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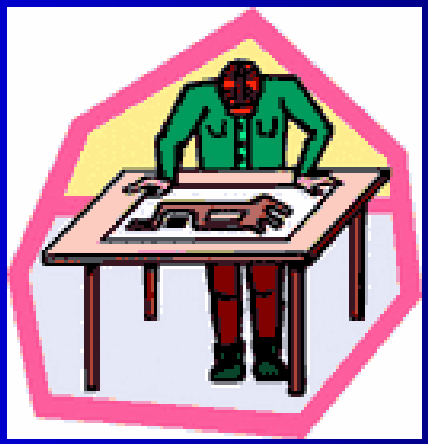
Development Planning Program Requirements



Development Planning

- Includes 4 Program Requirements
  - Standard Urban Storm Water Mitigation Plan (SUSMP)
  - Site/Activity-Specific BMPs/Mitigation Measures
  - Evaluating CEQA Projects for Runoff Pollution
  - General Updates of Certain Elements

Development Planning

- Standard Urban Storm Water Mitigation Plans (SUSMP)
  - Requires certain level of BMPs depending on project type
  - Includes development and redevelopment projects
  - Most complicated municipal NPDES permit program requirement
  - Impacts Planning & Building/Safety

Development Planning

- SUSMP/Planning Priority Projects
  - Single Family Hillside Home under 1 acre
  - Single Family Hillside Home over 1 acre
  - Ten or more unit homes (includes single family homes, multifamily homes, condominiums, and apartments)
  - A 43,560 square feet (1 acre) of impervious surface area industrial or commercial development
  - Automotive service facilities
    - 5013 - Motor vehicle supplies and new parts
    - 5014 - Tires and tubes
    - 5541 - Gasoline Stations (not RGOs)
    - 7532 - Top & body repair & paint shops
    - 7533 - Auto exhaust system repair shops
    - 7534 - Tire re-treading and repair shops
    - 7536 - Automotive glass replacement shops
    - 7537 - Automotive transmission repair shops
    - 7538 - General automotive repair
    - 7539 - Automotive repair shops (all inclusive category for everything not listed above)
  - Retail gasoline outlets
  - Restaurants (SIC 5812) – stand alone
  - Parking lots 5,000 square feet or more of surface area or with 25 or more parking spaces
  - Redevelopment projects in subject categories that meet Redevelopment thresholds
  - Any project within an ESA (environmental sensitive area)

Development Planning -SUSMP

- BMPs
  - Requires 3 types of BMP categories:
    - Tier I, most project types (e.g., no dumping catch basin signage, no exceedance of peak flow runoff rate, proper trash area design, slope and channel protection)
    - Tier II, use-specific (e.g., RGOs)
    - Tier III, mechanical/infiltration controls for some projects to address post-construction runoff pollution (applies to most planning priority categories)

Development Planning – SUSMP

Tier I

- Applies to most SUSMP project categories and requires
  - No dumping signage on catch basins
  - No exceedance of pre-con peak flow -- only applies to natural drainage systems
  - Properly designed trash enclosure (standard)
  - Slope and channel protection for unlined conveyances (most cities drain into lined flood control channels)

Development Planning Program

Tier II, Use-Specific (RGOs)

Development Planning Program

Tier II, Use-Specific (Industrial/Commercial)

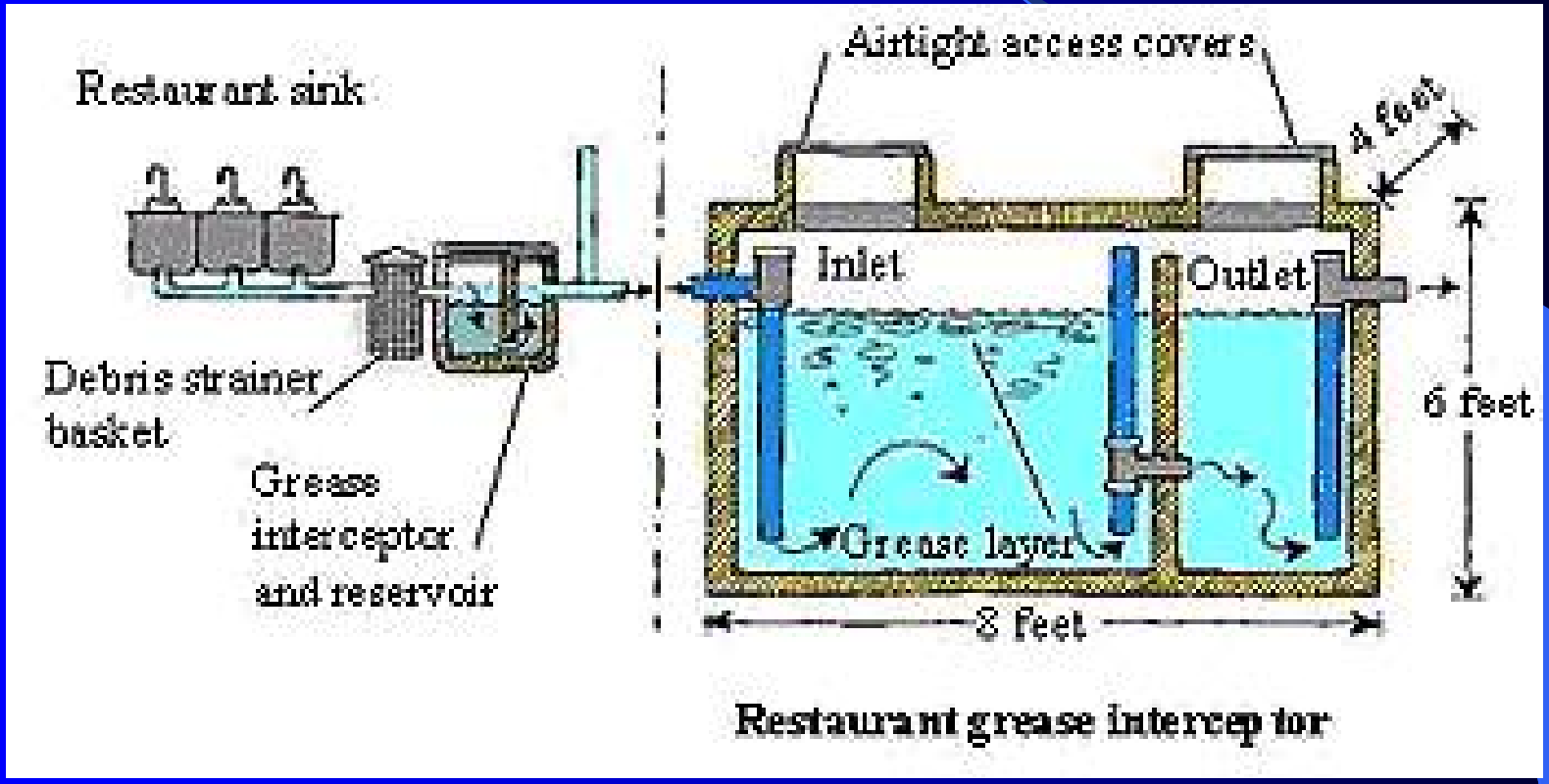
Development Planning Program

Tier II, Use-Specific (Industrial/Commercial)

Description

Development Planning Program

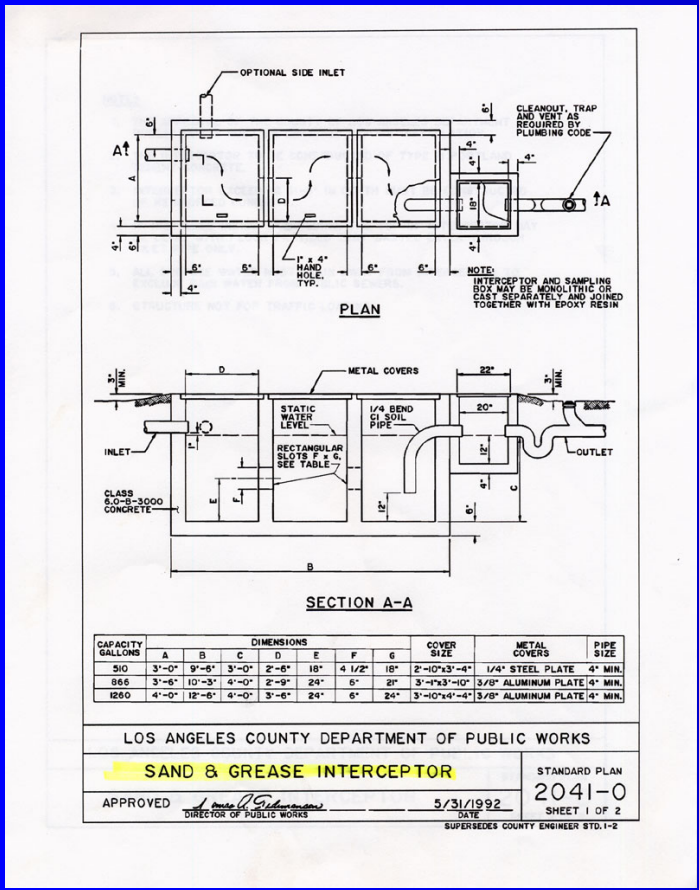
Tier II, Use-Specific (Restaurants)



Restaurant grease interceptor

Development Planning Program

Tier II, Use-Specific (Automotive-Related)

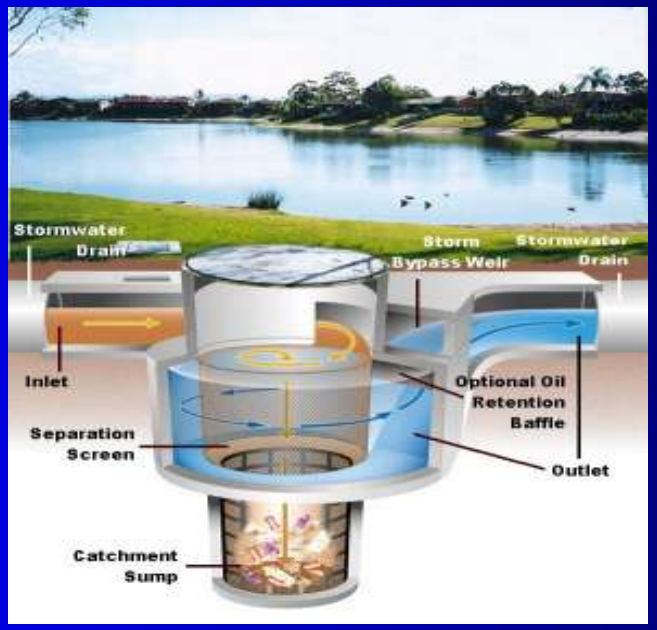


CAPACITY GALLONS	DIMENSIONS A	B	C	D	E	F	G	COVER SIZE	METAL COVERS	PIPE SIZE
510	3'-0"	9'-6"	3'-0"	2'-6"	18"	4 1/2"	18"	2'-10"x3'-4"	1/4" STEEL PLATE	4" MIN.
866	3'-6"	10'-3"	4'-0"	2'-9"	24"	6"	21"	3'-1"x3'-10"	3/8" ALUMINUM PLATE	4" MIN.
1260	4'-0"	12'-6"	4'-0"	3'-6"	24"	6"	24"	3'-10"x4'-4"	3/8" ALUMINUM PLATE	4" MIN.

Development Planning

TIER III BMPs
(Post-Construction Runoff Pollution Control)

- Vortex Separation Systems
  - Great for trash, lousy for oil &grease (typically pollutants on hard-scaped surfaces)
  - Requires A Lot Maintenance
  - Very expensive: $5,000 to $100,000
  - Requires a Lot of Head to Drive Them



Development Planning

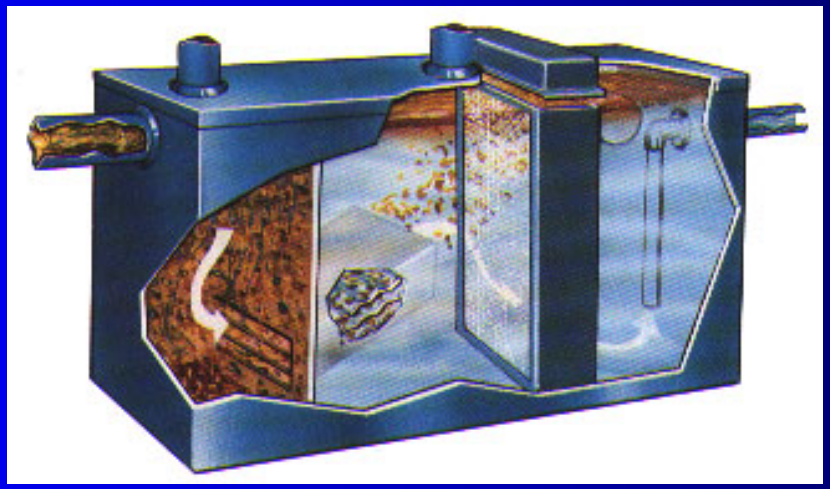
TIER III BMPs

- Mechanical and Infiltration Controls
  - Post-construction runoff pollution reduction
  - Applies to most but not all SUSMP-projects
  - Selection of control should be based on cost, performance in addressing the pollutant of concern (e.g., oil and grease) reputation of vendor/product reliability, and feasibility of installation
  - Controls must be designed (sized) properly in accordance with one of several “numeric criteria”

Development Planning

Mechanical BMP Examples

- Oil/Water Separators
  - Great for oil &grease and metal fines (but that's it)
  - Requires Maintenance (chambers must be cleaned-out by a hazardous waste hauler periodically) which can be expensive
  - Can be expensive: $2,000 to $50,000



Development Planning

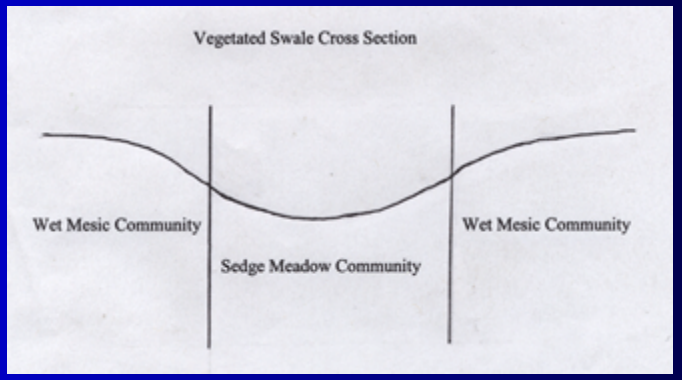
Mechanical BMP Examples

- Catch Basin Inserts
  - Okay for oil & grease and metal fines
  - Uses fabric filters
  - High Maintenance (filters must be replaced frequently)
  - Inexpensive: $1,000 to $2,000

Development Planning

Infiltration BMP Examples

- Vegetative (Grass) Swales
  - Effective against all pollutants
  - Low to Moderate maintenance (depending on vegetations)
  - Relatively Inexpensive



Development Planning

Infiltration BMP Examples

Development Planning

Infiltration BMP Examples

Development Planning

Infiltration BMP Examples

Development Planning

Infiltration BMP Examples

- Detention/Retention Basins
  - Effective against all pollutants
  - Low to Moderate maintenance (depending on vegetations)
  - High Capital Cost (reduces developable area)

Development Planning

Infiltration BMP Examples

- Hard Infiltration Controls
  - Unit Pavers
    - Effective against most pollutants
    - Low maintenance
    - High capital cost

Development Planning

Infiltration BMP Examples

- Hard Infiltration Controls
  - Unit Pavers
  - Effective against most pollutants
  - Low maintenance
  - High Capital Cost

Development Planning

Infiltration BMP Examples

- Hard Infiltration Controls
  - Plastic Chambers
  - Effective against most pollutants
  - Low maintenance
  - High Capital Cost

Development Planning

Infiltration BMP Examples
Cul-tec Storm Water Chamber
(residential)

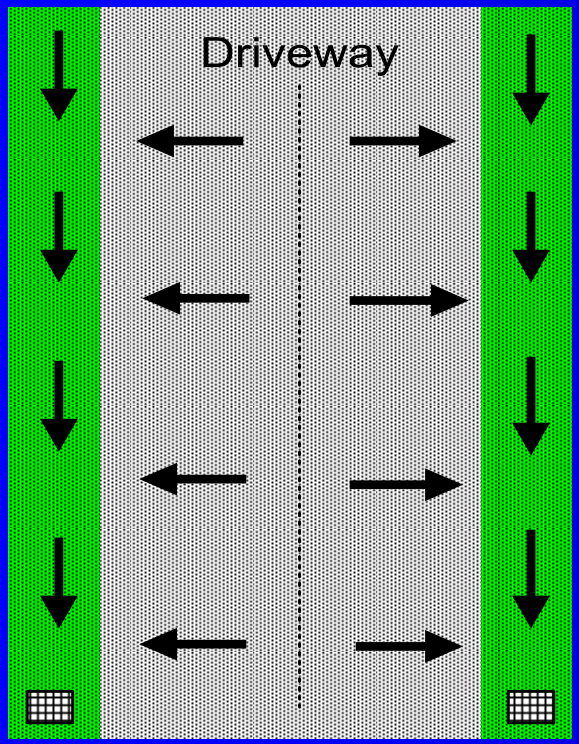
Development Planning

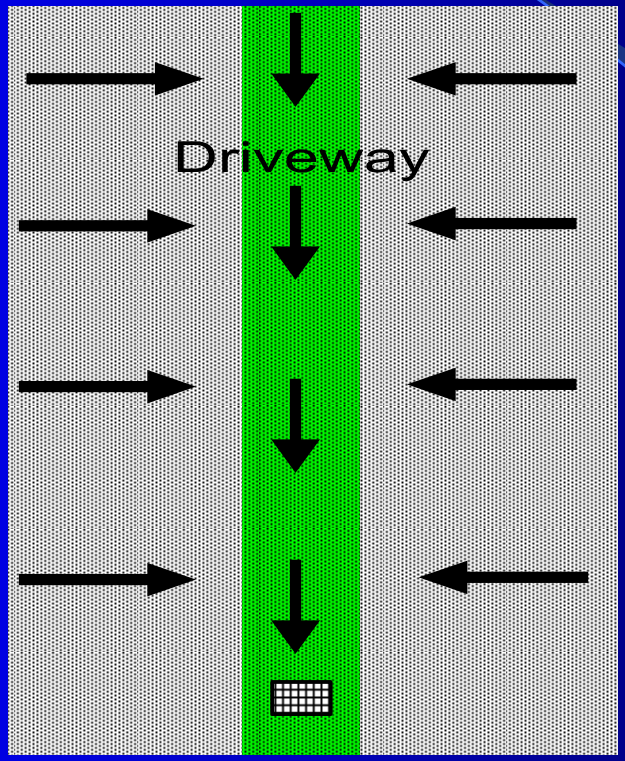
Infiltration BMP Examples
Cul-tec Storm Water Chamber (commercial)

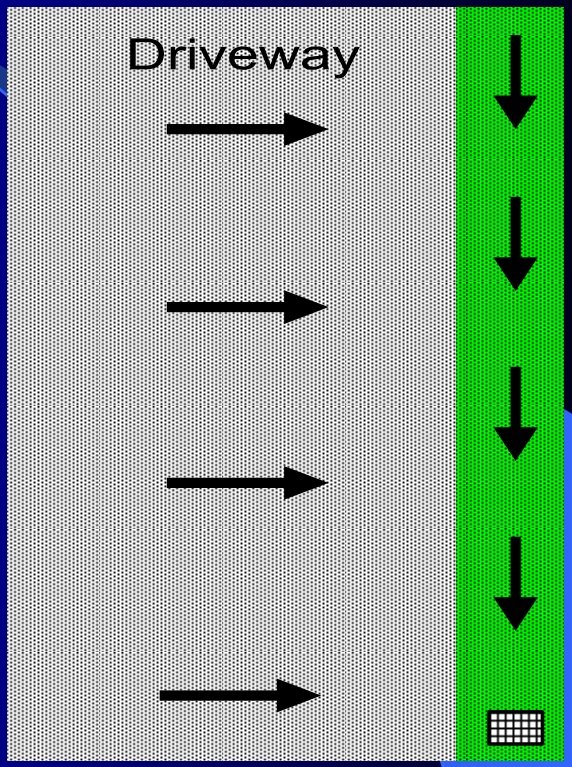
Development Planning

Infiltration BMP Examples

Driveways



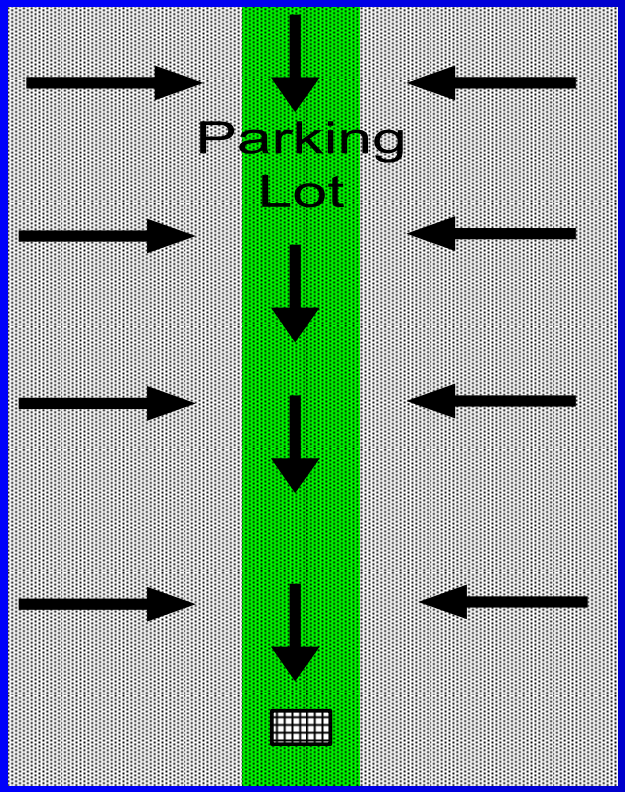


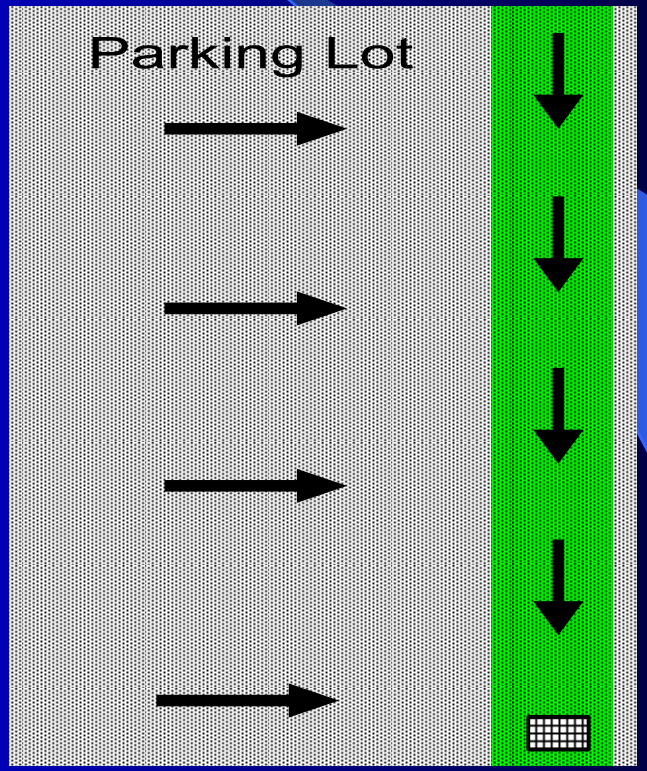


Development Planning

Infiltration BMP Examples

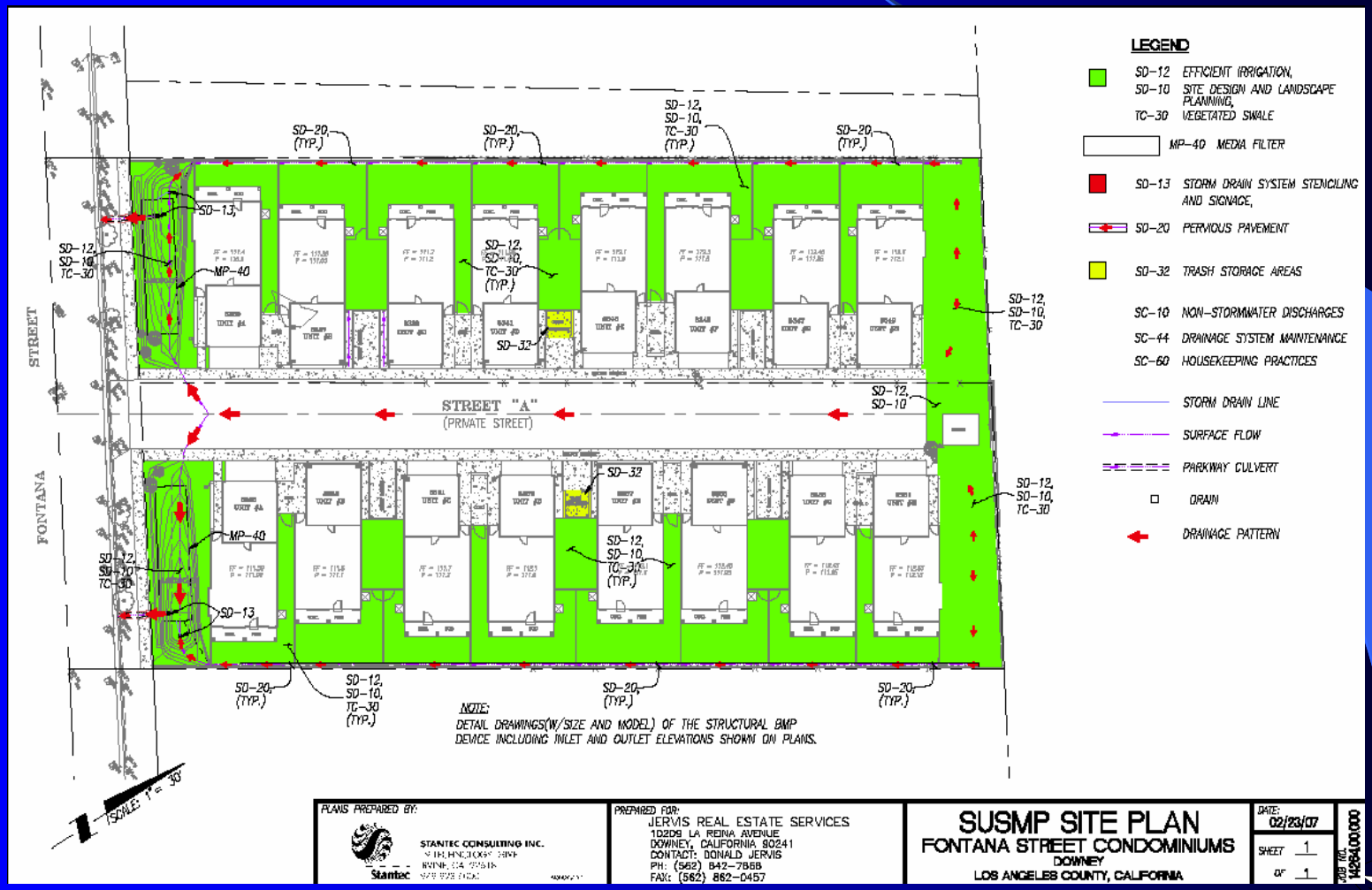
Parking Lots





Development Planning

Infiltration BMP Examples (residential development)



Development Planning

Infiltration BMP Examples (vegetative swales)

Figure 1
Urban Curb/Swale System-Diagram[1]

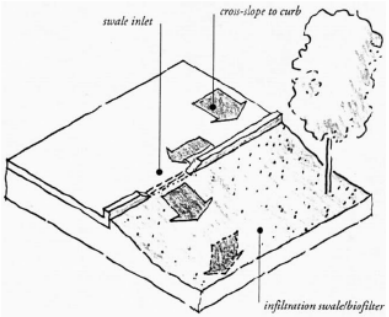
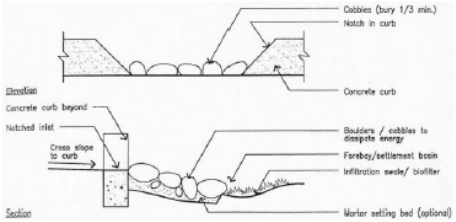


Figure 2
Urban Curb/Swale Inlet Design Section[1]



b. Surface Vegetated Swale/Bio Filter Design

Vegetated swales used in the urban curb/swale design are vegetated earthen channels that convey and infiltrate water and remove pollutants. A grass swale is planted with turf grass; a vegetated swale is planted with bunch grasses shrubs or trees. [1] A photograph as well as sections of typical vegetated swale are shown in Figures 3 and 4.

Figure 3
Vegetative Swale Design Section[1]

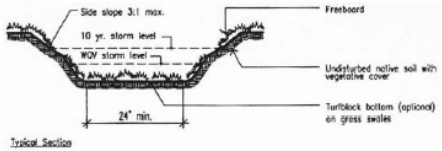


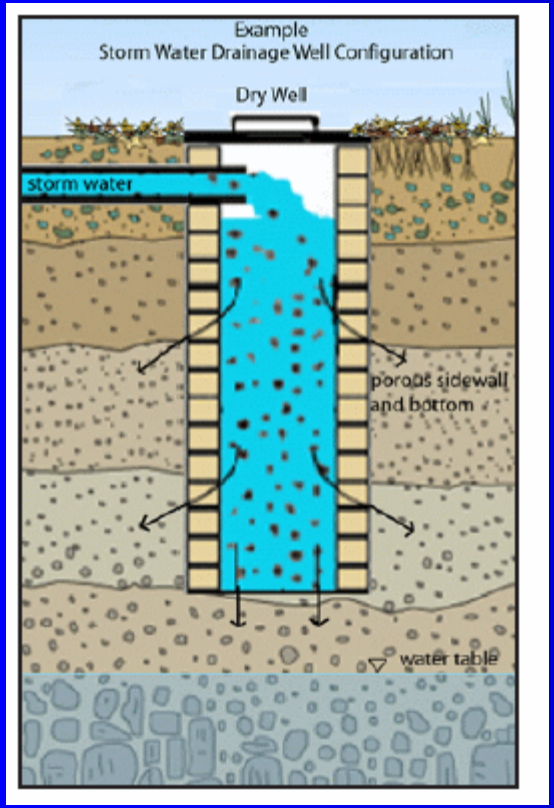
Figure 4
Vegetative Swale – Southbound Interstate 5 near La Costa Avenue Offramp

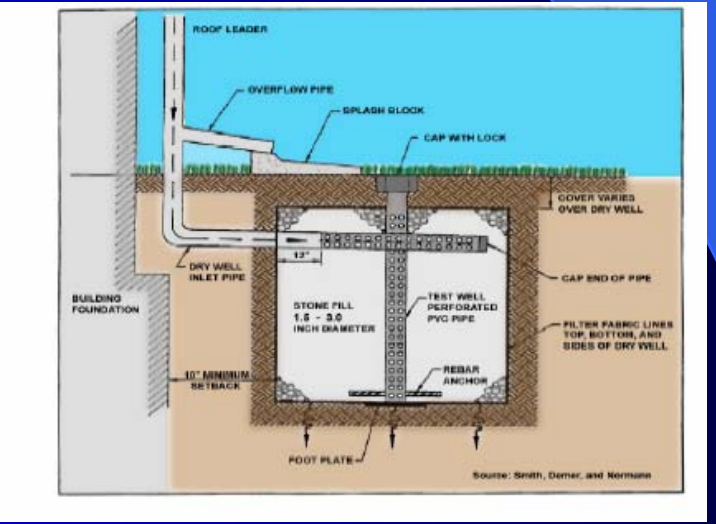
Development Planning

Infiltration BMP Examples
(Infiltration Trenches)

Development Planning

Infiltration BMP Examples
(french drains/dry wells and considered category V injection wells)





Development Planning

Infiltration BMP Examples
(Roof-top Runoff)

Development Planning
BMPs

- Mechanical/infiltration controls require sizing according to the following numeric criteria
  - The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook – Industrial/ Commercial,* (1993); or
  - The volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system; or

Development Planning

BMPs

- Mechanical/infiltration controls require sizing according to the following numeric criteria
  - The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998*); or
  - The flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity; or
  - The flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity for Los Angeles County; or
  - The flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards above.

Development Planning
BMPs

- Mechanical/Infiltration Control Selection
  - **Permit and SUSMP USED to allow developers to select appropriate mechanical/infiltration controls**
    - Regional Board now wants municipal Permittees to require developers to prefer infiltration over mechanical structural controls
    - Can't legally compel infiltration because the MS4 Permit and SUSMP allow infiltration or treatment (mechanical treatment) – but infiltration should be encouraged
    - No guidance has been provided by the Regional Board (a serious problem)
    - There are infiltration controls and then there are infiltration controls (some are more appropriate than others)
    - Still, infiltration controls are more effective and in many cases less expensive than mechanical structural controls
  - **Municipal Permittees have the right to decide which controls are appropriate instead of deferring to the developer (which should be the case now)**
    - Developers tend to opt for the least expensive and most problematic (e.g., Fossil Filters and other brands of catch basin inserts)

Development Planning
BMPs

- Mechanical/Infiltration Control Selection (continued)
  - Municipal Permittees should require infiltration if feasible
  - Infeasible situations include
    - hillside developments where there is the threat of slope failure
    - infiltrating runoff from streets (public and private)
    - infiltrating runoff from industrial areas where there is the risk of an accidental release of pollutant materials to the sub-surface
    - infiltrating runoff into in appropriate soils
  - Municipal Permittees can require mechanical controls if infiltration is not feasible
  - Municipal Permittees have the right to decide which controls are appropriate instead of deferring to the developer (which should be the case now)
    - Developers tend to opt for the least expensive controls (e.g., Fossil Filters and other brands of catch basin inserts)

Development Planning
BMPs

- Regional Board Prefers Infiltration Over Mechanical Treatment
  - Initially RB required infiltration or treatment
  - NOVs were sent out to encourage Permittees to infiltrate, even though treatment is an acceptable control for meeting SUSMP post-construction structural BMP control requirement
  - Infiltration is actually a better way to go but it is not always practical
    - soil conditions must be right
    - cannot be used on slopes
    - shouldn't be used for streets
    - shouldn't be used if there is the potential for contaminating groundwater

Development Planning

BMPs

- Maintenance Agreement Requirement
  - The developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; and either
  - A signed statement from the public entity assuming responsibility for Structural or Treatment Control BMP maintenance and that it meets all local agency design standards; or
  - Written conditions in the sales/lease agreement requiring recipient to assume responsibility for maintenance and conduct a maintenance inspection at least once a year, or

Development Planning

BMPs

- Maintenance Agreement Requirement (continued)
  - Written text in project conditions, covenants and restrictions (CCRs) for residential properties assigning maintenance responsibilities to the Home Owners Association for maintenance of the Structural and Treatment Control BMPs; or
  - Any other legally enforceable agreement that assigns responsibility for the maintenance of post-construction Structural or Treatment Control BMPs.

Development Planning

SUSMP Format

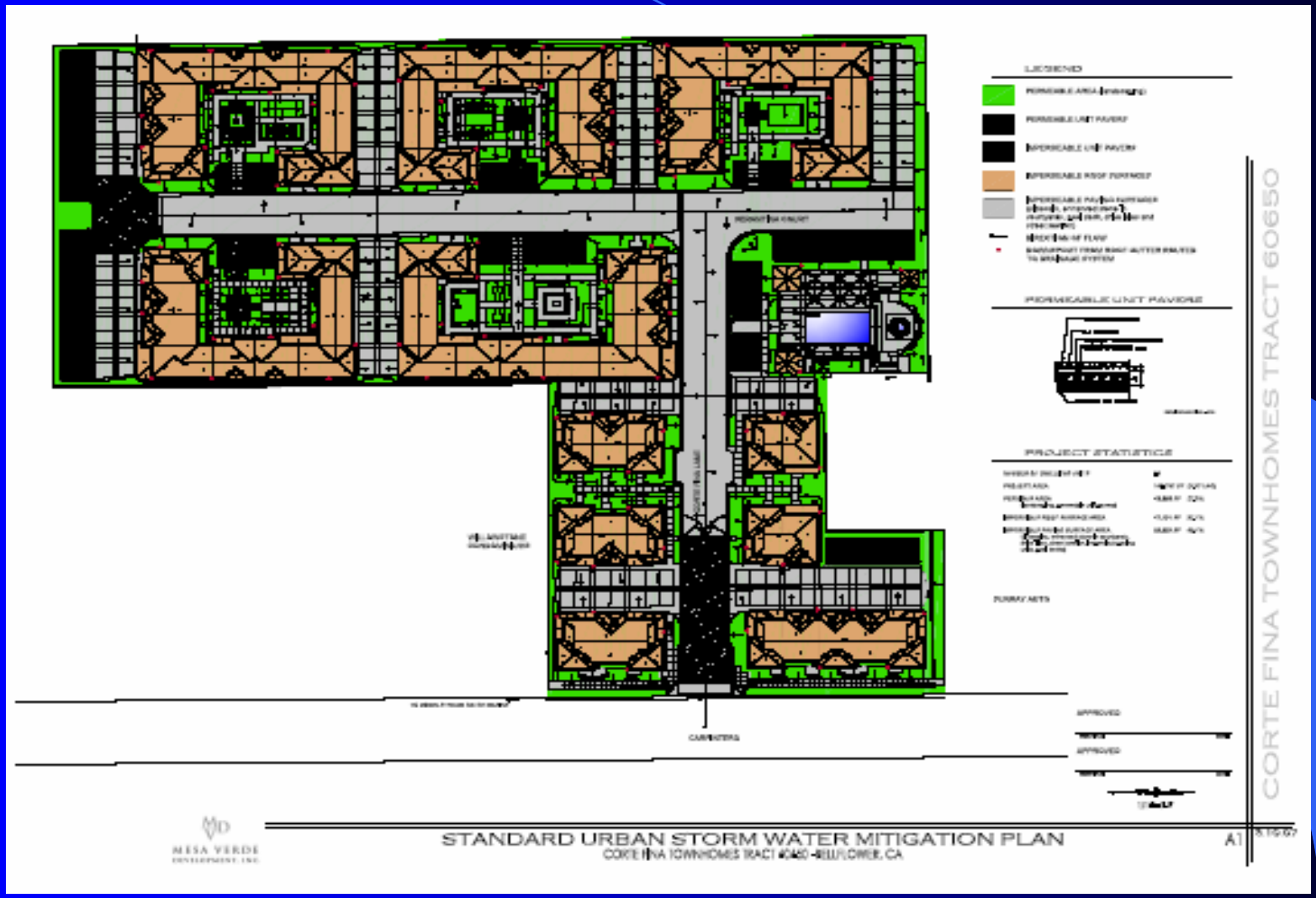
- SUSMP is a Plan
  - Some cities allow the use of grading plans to be the base plan
    - to show location of structural controls
    - to show drainage controls (catch basins, swales, etc.)
    - contours to show flow direction
    - no explanation of why controls were selected
    - difficult to understand
    - sizing calculations (e.g., to meet ¾" standard) are often not included
    - Regional Board wants a standard format that is easy to understand
    - Some consultants go over-board by submitting SUSMPs that are more like SWPPPs (2-3 inch binders), which usually contain useless information
    - SUSMPs can cost $3000 to $10,000 – depending on the project
    - Does not have to be that elaborate

Development Planning
SUSMP Format

- SUSMP Contents
  - Explanation of control selection for hardscaped areas
    - Rooftop Runoff – type of control selected (should be infiltration type, or if not feasible, an explanation as to why) - an explanation of why a mechanical control is needed instead
    - Parking areas/driveways – infiltration should be preferred but if not explain why and the justification for a treatment control
    - Sidewalks – should almost always be subject to infiltration
    - Streets (should avoid infiltration and mechanical treatment)

Development Planning

SUSMP Format



Development Planning
BMPs

- Please call me to discuss SUSMP projects

Development Planning

Project Activities Requiring BMPs/Mitigation Measures

Development Planning

- Project activities requiring BMPs (storm water mitigation) through CEQA review or discretionary approval
  - Vehicle or equipment fueling areas (canopy, proper grading/trench drains)
  - Vehicle or equipment maintenance areas, including washing and repair (clarifier usually)
  - Commercial/industrial waste handling (indoor storage/handing)
  - Outdoor handling/storage of hazardous materials (under cover/roof, off the ground)
  - Outdoor manufacturing (under cover/roof, off the ground)
  - Outdoor food handling (illicit discharge prevention, under cover/roof)
  - Outdoor animal care, confinement or slaughter (clarifier, illicit discharge prevention)
  - Outdoor horticulture (clarifier, illicit discharge prevention)

Development Planning

CEQA Reviews

- Mitigated Negative Declarations/EIRs
  - If project includes any of the project activities just mentioned, prescribe appropriate mitigation measures
  - If project also includes 1 of the 9 SUSMP project categories, indicate that it will conform with SUSMP requirements

Development Planning

General Plan Requirements

Development Planning
General Plan

- Applies to 4 Elements
  - Open Space
  - Conservation
  - Housing
  - Land Use

Development Planning
General Plan

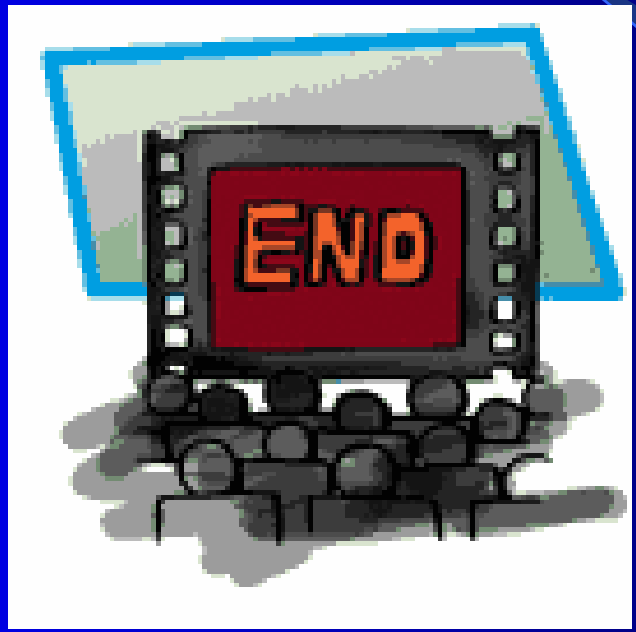
- Each element should contain reference to runoff considerations
  - General Plan Consultants are usually aware of this requirement
  - Notify me of any planned update of these elements
  - Updated element must be submitted to the regional board

Development Planning

- Documentation
  - Keep good records!
    - Need them in the event of an audit
    - Need them to complete annual reports due in September (annual report year coincident with fiscal year)
  - Use evaluation forms (check lists), which is a permit requirement
  - Track number and type of structural controls prescribed for SUSMP and Activity-Specific Projects (for submittal to the regional board)

Development Planning

- Public Education
  - Developer/Contractor Fact Sheets
    - A permit requirement
    - Make them available, preferably at the counter for better visibility
    - Make sure to re-stock them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Municipal NPDES Permit
Development Construction and Planning Requirements

Introduction

- Training Purpose
  - Educate Impacted City Personnel On Development Construction and Planning Requirements of the Municipal NPDES Permit (especially the differences)
    - Public Works
    - Planning
    - Building & Safety
    - Code Enforcement (if they do inspections)

Introduction

- Training Expectation
  - Know the difference between development planning project requirements and development construction project requirements
    - Confusion between the two in terms of requirements and BMPs
  - Encourage cooperation between planning and engineering
    - Confusion has led to who is responsible for what

Background

- Why Is It Important to Comply?
  - Local, State and Federal Requirements
    - Required by City's Runoff Control Ordinance
    - NPDES Permits in California Are Authorized Under the Porter-Cologne Act (Water Code)
    - NPDES Permit Are Also Authorized Under the Federal Clean Water Act
  - Improves Water Quality (good for environment)
    - Reduces Pollutant Discharges to MS4 (municipal storm drain system)
    - Prohibits Illicit Discharges (discharges not entirely composed of storm water and are not exempted).

Background

- What If Your City Does Not Comply?
  - Bad Stuff Will Happen to It
    - Fines Can Be As High As $10,000 or more per day
    - Automatic $1,000 fine for non-compliance
    - Exposure to Third Party Litigation
    - Bad Publicity for Your City (and City Council)

Background

- What Is An Municipal NPDES Permit?
  - National Pollutant Discharge Elimination System
    - Allows municipalities to discharge storm water and certain categories of non-storm water to the MS4
    - In exchange, conditions must be met:
      - Municipalities must implement 6 programs (Illicit Connection/Discharge Elimination, Public Education, Industrial/Commercial Inspection, Public Agency, and Development Planning & Construction) to reduce pollutants to the MS4
      - Municipalities must prohibit illicit discharges (any discharge that is not entirely composed of storm water and is not exempted under the Los Angeles MS4 Permit)

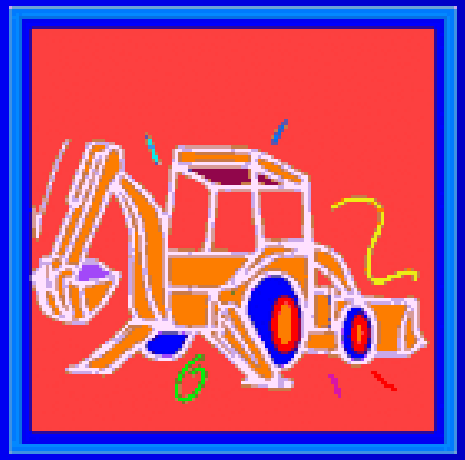
Background

- What Is A Pollutant?
  - Basically, everything that isn't storm water
    - Sediment or any material containing chemicals whole or diluted (e.g., concrete wash-out, paint, asphaltic material, and trash)
- What the MS4?
  - Stands for municipal separate storm sewer system (aka: storm drain system)
    - Includes streets, gutters, alleys, culverts, catch basins, storm drains, or any conveyance that transports runoff to a receiving water

Background

- What Is A Receiving Water?
  - Any navigable water body
    - Lake, stream, creek, river (including flood control channels) and oceans

Development Construction Program Requirements



Development Construction

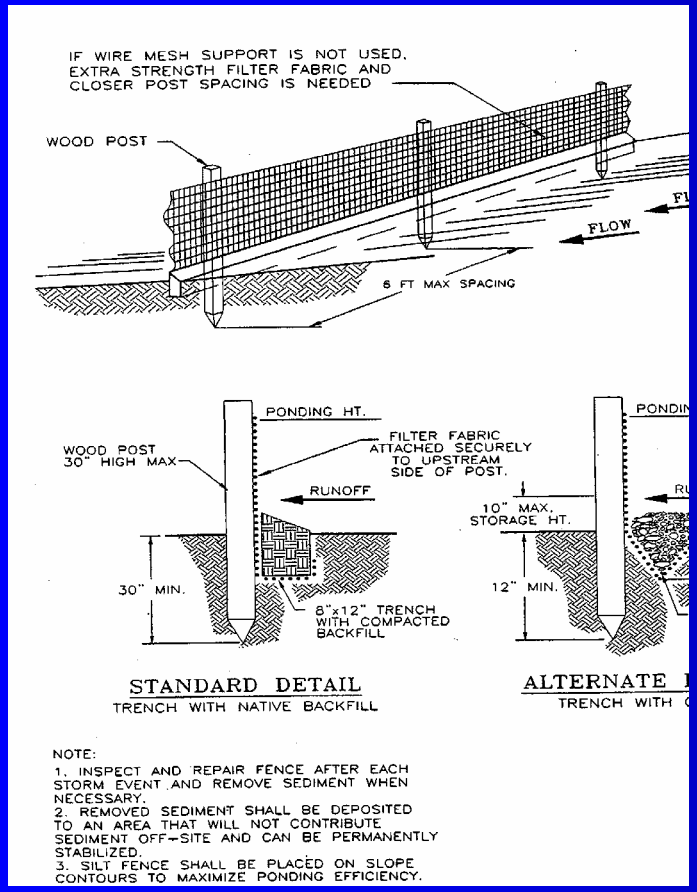
- Construction Projects Less Than 1 Acre
  - Requires City to assign minimum BMPs as conditions for grading permit issuance (project-by project basis)
    - Silt fences or sand bags (almost always)
    - Stabilized Construction Entrance (if a lot of traffic)
    - Trash receptacles (almost always)
    - Proper storage of materials containing pollutants
    - Erosion controls on slopes
    - Controls to prevent illicit discharges (e.g., concrete wash-out)

Development Construction

- Silt Fencing
  - Should be placed perpendicular to flow
  - Bottom of the fence should be anchored down to halt runoff entrained with sediment (if there is an opportunity for it to enter the MS4)
  - Many silt fences are installed improperly
    - Gaps between the bottom of the plastic bottom and the ground, allowing flow entrained with sediment to spill into MS4

Development Construction

Silt Fencing

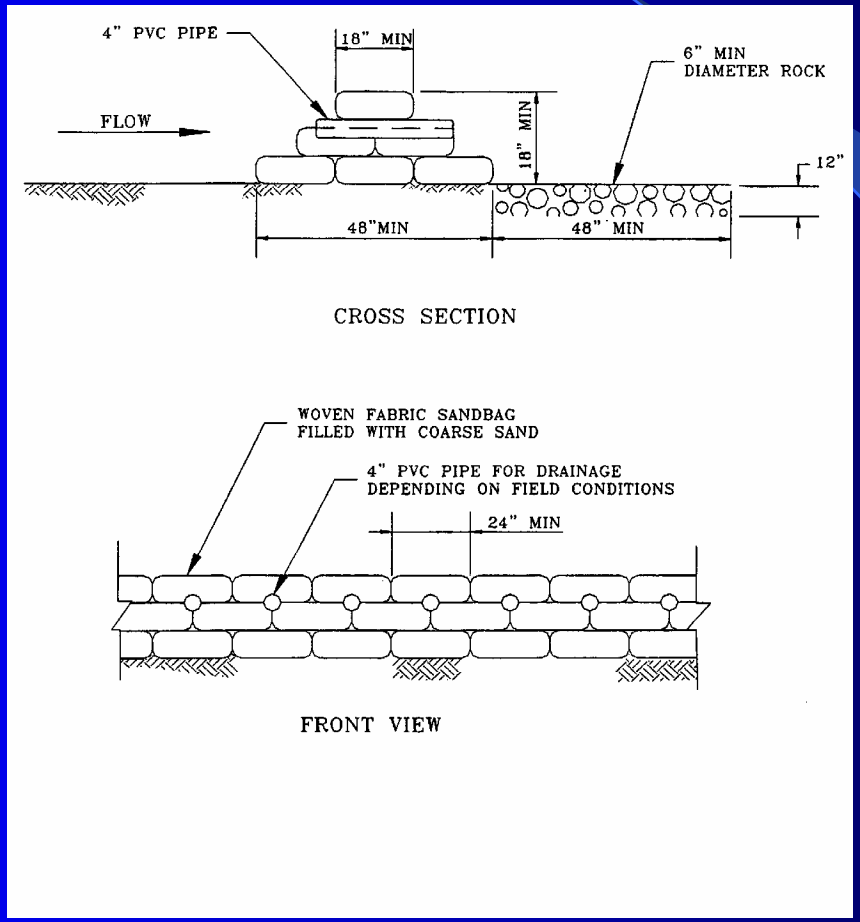


Development Construction

- Sand Bags
  - Should be placed perpendicular to flow
  - At least 2 rows (a third can be installed if necessary)
  - Should be maintained periodically (especially after a storm)
    - Plastic bags rupture easily
    - Construction activities and rains can disrupt sand bagging

Development Construction

Sand Bagging



Development Construction

- Catch Basin Inlet Protection
  - Could be used to prevent entry of sediment to the MS4 as a secondary sediment control (to silt fencing/sand bagging)
  - Various types (check dams/sand bags, viscuine or geo-textile fabric anchored down with sand bags)
  - Check dams/catch basins are better during the wet season but are more costly/labor intensive
  - Viscuine/geotextile fabric over the catch inlets should be used only during the dry season because of flooding issues

Development Construction

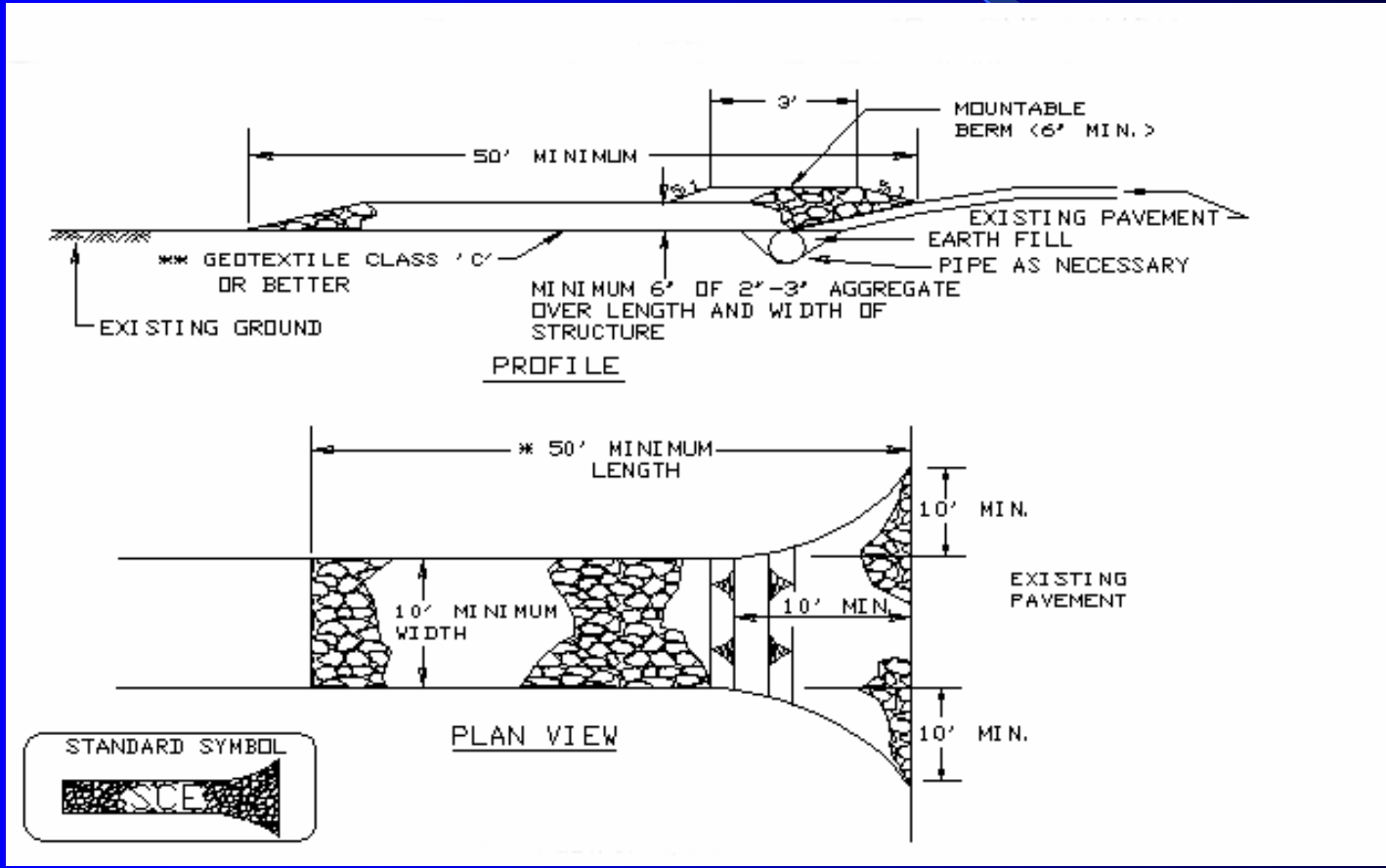
Catch Basin Inlet Protection

Development Construction

- Stabilized Construction Entrance
  - Should be installed if lots of in-and-out heavy vehicle traffic is expected
  - Various configurations (e.g., steel grates, ¾ angular rock over a geotextile)
  - Should be maintained periodically (daily traffic can disrupt some types of stabilized construction entrances)

Development Construction

Stabilized Construction Entrance

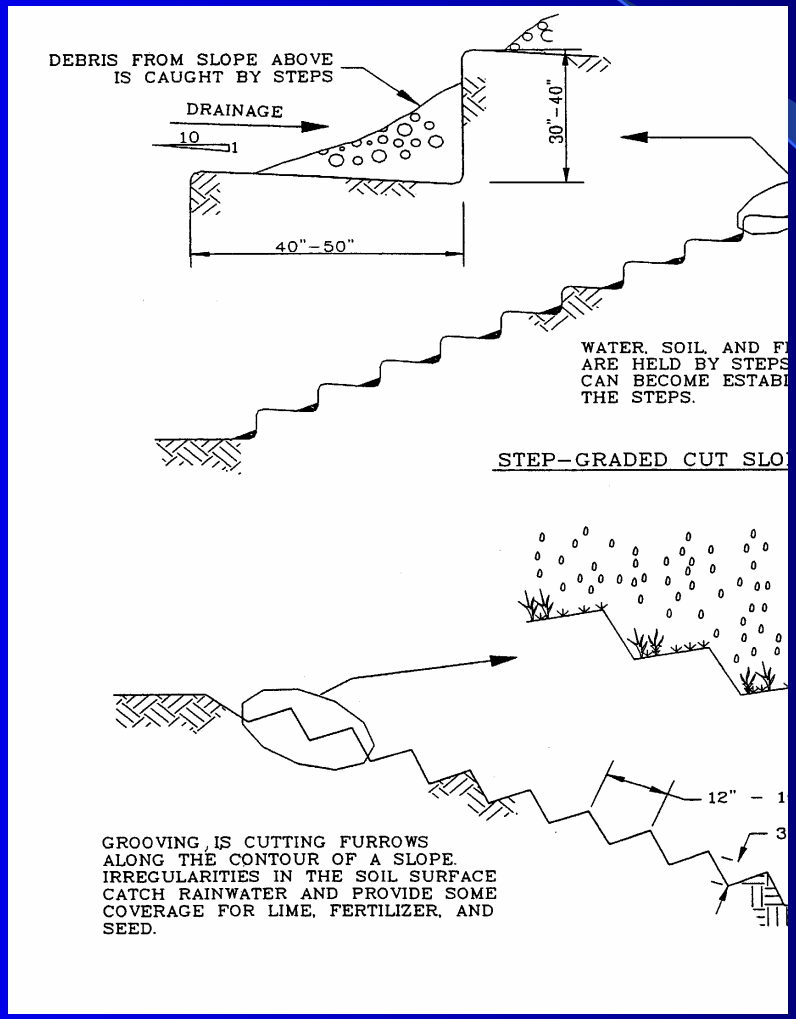


Development Construction

- Slope Stabilization (erosion control)
  - Terracing
  - Vegetation
  - Netting

Development Construction

Slope Stabilization



Development Construction

- BMP Resources
  - California Storm Water Quality Association (CASCA) Storm Water Best Management Practice Handbook - Construction
  - Los Angeles County Model Programs, Development Construction
  - City of Los Angeles and County of Los Angeles Storm Water Web Sites

Development Construction

- Construction Projects Less Than 1 Acre
  - Inspection Requirements
    - Permit does not specify any
      - But for projects that are between .5 acre and less than 1 acre, cities should inspect at least once during the wet season and once during the dry season)
      - Inspection visits should be documented and violations should be noted (use your own or a model)

Development Construction

- Construction Projects More Than 1 Acre
  - City Requires GCASWP As A Condition for Grading Permit Issuance, or
  - L-SWPPP (a local storm water pollution prevention plan)

Development Construction

- GCASWP
  - General Construction Activity Storm Water Permit
  - An NPDES permit Issued by the State Water Resources Control Board
  - Conditions
    - Requires a Fee ($750.00)
    - Submittal of a Notice of Intent to apply for a GCASWP (NOI)
    - Preparation of a Storm Water Pollution Prevention Plan (SWPPP)

Development Construction

- GCASWP - continued
  - Cities required to
    - Verify GCASWP application (WDID number or copy of an NOI)
    - Should not issue grading permits until either of these is provided
    - No ground should be broken until the WDID has been presented and a SWPPP is made available to the City for inspection
    - Inspect at least once during the wet season
    - Report serious violations to the regional board

Development Construction

- Local SWPPP
  - Alternative to GCASWP
    - Requires only a SWPPP that is essentially equivalent to a SWPPP required for GCASWP compliance
    - Downside: City is responsible for ensuring conformance instead of the regional board
    - County of Los Angeles prefers this option (contract cities as well)
    - Cities can pursue this option at any time and for any 1 acre-plus project

Development Construction

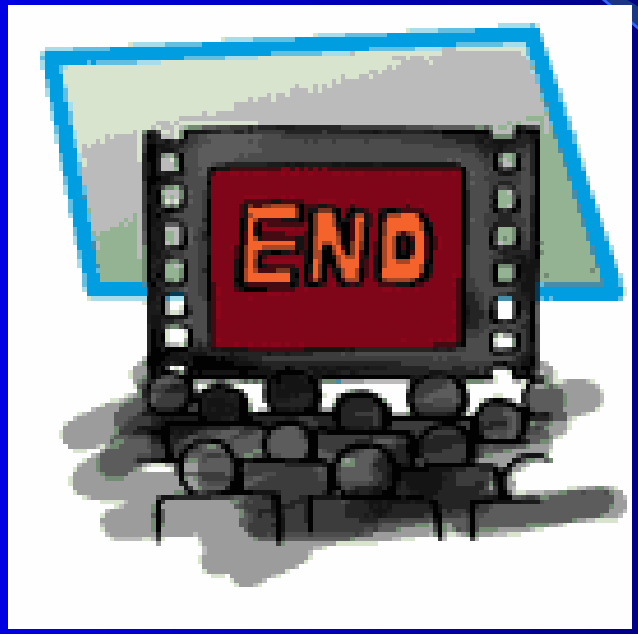
- Local SWPPP - continued
  - Architect/Engineer Certification Requirements
    - *As the architect/engineer of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity."*

Development Construction

- Local SWPPP - continued
  - Land Owner/Agent Certification
    - *I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to update the Local SWPPP to reflect current conditions, or failing to properly and/or adequately implement the Local SWPPP may result in revocation of grading and/or other permits or other sanctions provided by law."*

Development Construction

- Documentation
  - Keep good records!
    - Need them in the event of an audit
    - Need them to complete annual reports due in September (annual report year coincident with fiscal year)
  - May use existing media or model forms
  - Track grading permits and development construction projects that were conditioned on them using GIS or other data base


END

New Municipal NPDES Permit

Presented By

TECS Environmental

Storm Water Quality Management Programs

Illicit Discharge and Connection Detection and Elimination

Illicit Discharges/Connections

Illicit Discharge/Connection Detection and Elimination

- Prohibit illicit discharges/connections from any source - residential, commercial, industrial, and public facilities over which the city has control (exception, e.g., school districts)
  - Illicit Discharges – discharges other than storm water to the MS4 (except exemptions)
  - Illicit Connections – devices that transport illicit discharges (drains, pipes, etc.)

Illicit Discharges/Connections

- Exempted Discharges
  - Natural Spring Water
  - Flows from riparian habitats or wetlands
  - Stream diversions, permitted by the State Board
  - Uncontaminated ground water infiltration
  - Flows from emergency fire fighting activity
  - Flows incidental to urban activities
    - Reclaimed and potable landscape irrigation runoff
    - Potable drinking water supply and distribution system

Illicit Discharge Elimination

Exempted Discharges

- Flows incidental to urban activities
  - Reclaimed and potable landscape irrigation runoff
  - Potable drinking water supply and distribution system
  - Drains for foundations, footings, and crawl spaces
  - Air conditioning condensate
  - Dechlorinated/debrominated swimming pool discharges
  - Dewatering of lakes and decorative fountains
  - Non-commercial car washing by residents or by non-profit organizations
  - Sidewalk rinsing

Illicit Discharge Elimination

- Eliminate Illicit Discharges/Connections
  - Establish legal authority to prohibit illicit connections
  - Encourage public reporting to city/county hotline
  - Set up reporting hotline (should have one now)
  - Encourage public reporting to city/county hotline
  - Establish recording system to document suspect actual illicit connection/discharge

New Municipal NPDES Permit

- Prohibit illicit discharges/connections from any source - residential, commercial, industrial, and public facilities over which the city has control (exception, e.g., school districts)
  - Illicit Discharges – discharges other than storm water to the MS4 (except exceptions)
  - Illicit Connections – devices that transport illicit discharges (drains, pipes, etc.)

Illicit Discharge Elimination

Eliminated Illicit Discharges/Connections

- Field-screen open channels
- Field-screen underground pipes in priority areas no later than
- Field-screen all underground pipes with a diameter of 36 or greater
- Plot permitted connections to the storm drain using GIS by

Illicit Discharge Elimination

Eliminate Illicit Discharges/Connections

- Use plotted data to determine priority areas for investigation
- Plot illicit connections and discharges on GIS
- All illicit discharges must be investigated ASAP
- Must respond to discovery or report of illicit discharge and clean-up discharge within 1 day
- Illicit connections must be investigated within 21 days of discovery/report

Illicit Discharge Elimination

- Illicit discharge is any discharge not entirely composed of storm water and not exempt under the permit or a separate NDPES permit (e.g., GIASWP)

Exceptions include tap water (unmixed with pollutants) irrigation and landscape runoff, air condition condensate

Illicit Discharge Elimination

- An illicit connection is a device that conveys an illicit discharge to the storm drain system (street, alley, catch basin, gutter, floor control channel)

Illicit Discharge Elimination

Public Education

- Inform facility personnel that washing surfaces, mats and other things outdoors that causes runoff into the street or catch basin...

Illicit Discharge Elimination

Exempted Discharges

- Pipe is connected to a roof mounted air conditioner

This is not an illicit discharge and, therefore, not an illicit connection

Wrap Up

Questions and Answers

Call me if you have any other questions:

Ray Tahir
TECS Environmental
(626) 396 - 9424

DRAINAGE / STORM WATER POLLUTION PREVENTION PLAN

NOTES NOT USED-STRIKETHROUGH

STORM WATER POLLUTION PREVENTION PLAN NOTES:

- A — All Construction materials shall be delivered and stored on site per BM WM-1. Use of these materials shall be as per BMP WM-2.
- B — Provide a concrete waste management and vehicle and equipment maintenance area per BMP WM-8, NS-10 & NS-8.
- C — Provide gravel bag barrier per BMP SE-6 or fiber roll per BMP SE-5
- D — Provide stabilized construction entrance/exit per BMP TC-1.
- ~~E — Deploy trash receptacles for proper containment of trash per BMP TC-1.~~
- ~~F — Protect all downstream storm drain inlet per BMP SE-10. This applies also for sand storage (for gunite) on sidewalk or street.~~
- G — Proposed location of portable toilet. Discharge of pollutants from sanitary/septic waste to storm water drain shall be prevented by providin convinient, well maintained facilities. Refer to BMP WM-9 for methodology.
- H — No stockpiles, material storage on the public right of way anytime during th construction unless allowed under a temporary encroachment permit obtained through Public Works.
- I — If any equipment/Truck/Vehicle is parked on the street occupying half or more width of the lane and/or disrupting the normal traffic flow, the contractor wil submit a traffic control plan and get it approved prior to start of work.

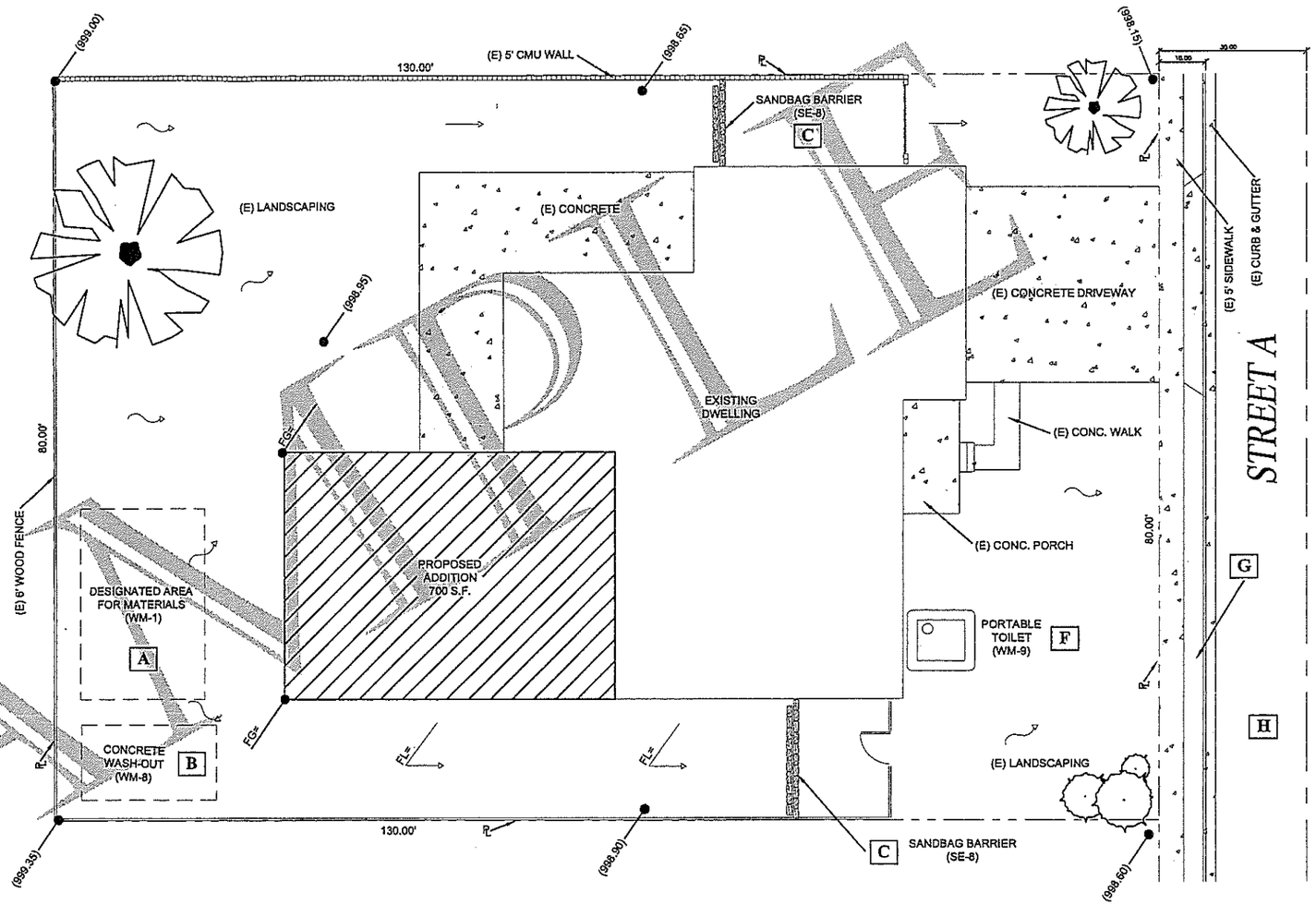
CALL PUBLIC WORKS AT (626) 914-8246 TO SCHEDULE S.W.P.P.P. INSPECTION PRIOR TO START OF CONSTRUCTION.

GENERAL NOTES:

1. The STORM WATER POLLUTION PREVENTION PLAN shall remain on site at all times during construction.
2. All existing on-site vegetated areas not to disturb shall be preserved in accordance with BMP EC-2.
3. Wind Erosion Control per BMP WE-1 shall be implemented on a daily basis as needed to keep dust levels to a minimum.
4. All employees and/or subcontractors on this project shall be trained in th matters of housekeeping practices and waste containment in accordance with BMP WM-4 & WM-5.

LEGEND:

T.C.	TOP OF CURB
F.L.	FLOW LINE
F.S.	FINISH SURFACE
F.G.	FINISH GRADE
(999.00)	EXISTING ELEVATION
999.00	PRPOSED ELEVATION
~→	SHEET FLOW
——→	CONCENTRATED FLOW



BMP'S TO BE USED ON-SITE:

(EC-1) SCHEDULING
(SE-1) SILT FENCE
(SE-5) FIBER ROLLS
(SE-6) GRAVEL BAG BERM
(SE-7) STREET SWEEPING & VACUUMING
(SE-8) SANDBAG BARRIER
(SE-10) STORM DRAIN INLET PROTECTION
(WE-1) WIND EROSION CONTROL
(TC-1) STABILIZED CONSTRUCTION ENTRANCE/EXIT

NON-STORMWATER MANAGEMENT BMP'S TO BE USED

(NS-3) PAVING AND GRINDING OPERATIONS
(NS-8) VEHICLE & EQUIPMENT CLEANING
(NS-10) VEHICLE & EQUIPMENT MAINTENANCE
(NS-12) CONCRETE CURING
(NS-13) CONCRETE FINISHING
(WM-1) MATERIAL DELIVERY & STORAGE
(WM-2) MATERIAL USE
(WM-3) STOCKPILE MANAGEMENT
(WM-8) CONCRETE WASTE MANAGEMENT
(WM-9) SANITARY / SEPTIC WASTE MANAGEMENT

I do hereby certify under penalty of law that this document and all attachments will be carried out under my direction and supervision. I understand that at the conclusion of this project, I will be required to submit certification that all elements of this project were carried out in accordance with this SWPPP (and all attachments). In case of emergency or SWPPP corrections contact:

Name:_____ Date:_____

Title:_____ Phone:_____

S.W.P.P.P. INSPECTED & APPROVED

Signature Date

CITY OF GLENDORA — Engineering Division

DRAINAGE / S.W.P.P.P.
ADDRESS

Reviewed by:	Plan No.:	Scale: No Scale
		Drawn By:
Engineering Division Date	Sheet 1 of 1	File No.:

Attachment D

Section One Sewer System Maintenance, Overflow, and Spill Prevention Plan

1.0 Summary of Requirements

The **City** is responsible for implementing a *sewer system maintenance, overflow, and spill prevention plan*. Facilities that are covered under this plan include: sanitary sewer pipes and pump stations owned and operated by the City. The purpose of the plan is to provide affected City personnel with written procedures to accomplish the following:

- Keep any sewage system overflows or leaks from entering the MS4 (any street, gutter, catch basin, open channel, ditch, or any device, natural or man-made, that transports runoff to the Los Angeles River.
- Identify, fix, and remediate sewage system blockages, exfiltration, and overflows
- Implement procedures for investigating suspected cross-connections
- Notify public health authorities when there is a threat to public health

2.0 Spill Response

Upon notification of a sewage release (spill, leakage, or overflow) to the MS4, the following steps shall be performed:

- Dispatch appropriate personnel to perform material cleanup
- Contain the spill and minimize the release to the storm drain system or receiving waters
- Record required information at the spill site using attached form

- Perform field evaluation to determine the source of the spill

2.1 Spill Containment, Removal, and Disinfection

Sewage releases include any kind of sewage discharge to the MS4, including ***leaks*** and ***overflows*** from sewer pipes and pump stations. In the event of a sewage discharge to MS4, the following steps must be taken:

- Prevent traveling sewage from entering the MS4 by covering or blocking storm drain inlets and catch basins, or by containing and diverting the sewage away from open channels and other storm drain facilities (using sandbags, inflatable dams, etc.)
- Remove the sewage using vacuum equipment or use other measures to return it to the sanitary sewer system
- In the event disinfection is necessary (e.g., using sodium hypochlorite), make every effort to prevent the disinfectant or sewage with disinfectant from entering the MS4. In the event such discharge threatens to enter a catch basin, the catch basin inlet should be blocked (e.g., using sand bags or impermeable covering over the inlet). In the event the discharge threatens to enter an open channel or a storm drain, contain or divert the stream away from it using appropriate material (e.g., sand bags, etc.)
- Record the estimated volume of the release that entered the street, catch basin, or channel
- Determine the source of the release and take steps necessary to stop it

2.2 Sewage Release Prevention

To minimize the frequency of sewage releases to the MS4, the following steps should be taken:

- Note the condition of the sanitary sewer during scheduled and non-scheduled inspections, maintenance, and repair work,

including: (i) cracked/deteriorating pipes; (ii) leaking joints/seals at manhole; (iii) plugged line; (iv) line flowing at or near capacity; and (vi) suspected exfiltration

- Identify areas that need maintenance or repair
- Document recommendations for repair and notify superior personnel
- Prioritize repairs based on the nature and severity of the problem

3.0 Cross Connection Discovery

A cross connection is a connection between the MS4 and sewerage system, which is also considered an illicit connection (see Illicit Connections and Illicit Discharges Elimination Program). The following steps shall be taken to verify that suspected connections or cross-connections are investigated:

- Educate field personnel to recognize suspected and actual cross-connections to the sanitary sewer system
- Maintain accurate records of both sewer connections and new sewer lines
- Report suspected or actual cross connections to appropriate personnel
- Initiate investigation into source of cross connection in accordance with IC/ID Elimination Program.

4.0 Release Notification

In the event of a sewage release to the MS4 which has the potential to threaten a beneficial use of a water body, the following steps shall be taken implemented:

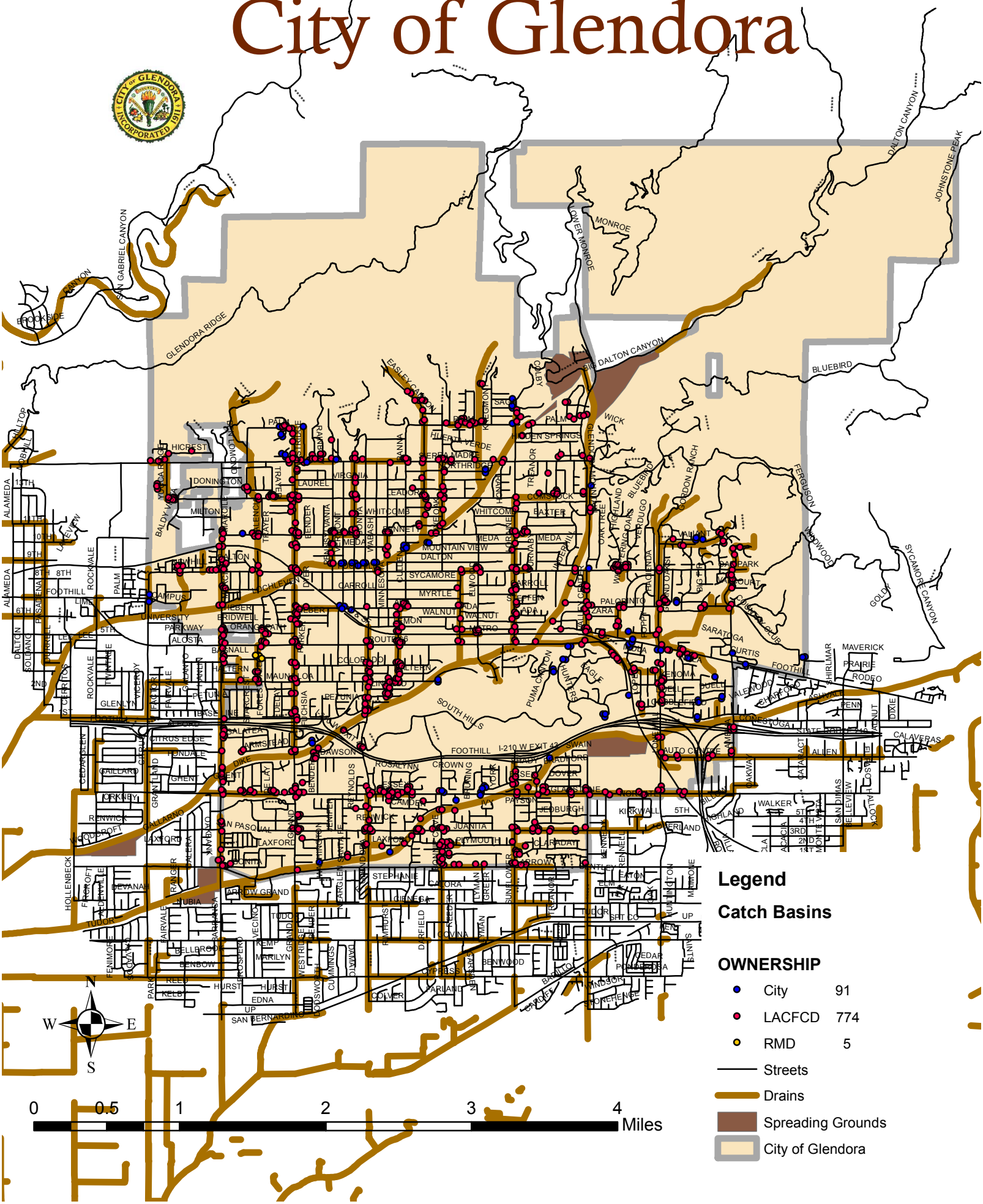
- Notify the County Department of Health Services, or other local health agency (including the regional board and/or the Los Angeles County Sanitation Districts) of the spill location and potential discharge point to the receiving water. (Note: the County may be reached by calling the Hotline number (800) 303-0003 or (888) CLEANLA.)
- Notify other impacted agencies – including the regional board and the Sanitation Districts of Los Angeles County -- as needed to help determine the extent of the threat and document the release.

5.0 Training

Affected department personnel shall be trained at least annually on sewage system maintenance and spill prevention requirements as specified in this section. Any new employee who is assigned to performing these tasks shall be given training as a prerequisite.

Attachment E

City of Glendora



Attachment F

Section I — Illicit Connection and Discharge Detection/Elimination Program

I. Summary

The **City** is required to comply with illicit connection and discharge detection and elimination program requirements as specified in the Los Angeles County Municipal NPDES permit ("municipal permit").

An illicit connection is any conduit or other device (e.g., curb outlets, drains directly connected to catch basins or storm drains) that transports an illicit discharge to a component of the municipal storm drain system (also referred to alternatively herein as the municipal separate storm sewer system or "MS4").

An illicit discharge is any discharge that enters the MS4 and is not entirely composed of storm water and is not exempted under the municipal permit or other storm water NPDES permit.

MS4 means "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, alleys, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a State, city, county, town or other public body, that is designed or used for collecting or conveying storm water, which is not a combined sewer, and which is not part of a publicly owned treatment works, and which discharges to Waters of the United States." **A water of the United States** generally means any water body (also alternatively referred to as a receiving water body) that is navigable. In the City's case, the principal water body is the San Gabriel River.

II. Policy Statement

It is the **City's** policy to comply with illicit connection and discharge detection and elimination requirements in accordance with the "municipal permit". The policy addresses: (1) responding to reports of illicit connections and discharges from the public and City personnel; (2) investigating such reports to determine their validity; (3) eliminating a reported connection or discharge; (4) taking appropriate enforcement action to halt or prevent the discharge or connection; and (5) recording required information for internal and external reporting purposes (viz., to the California Regional Water Quality Control Board, Los Angeles Region).

III. Impacted Departments

Generally, the following departments are impacted by this policy: Planning, Public Works and Community Services.

IV. **Illicit Connection Detection and Elimination Requirements**

The City is required to terminate all detected illicit connections upon detection. An illicit connection is a connection through which an illicit discharge passes (see definition of illicit discharge below). It is the discharge rather than the connection itself that determines whether a connection is illicit.

There are 2 ways to detect illicit connections. One way is to investigate illicit connections reported from the public or City employees. The other way is to conduct field screening of the MS4.

1. Reports from the Public or City Personnel

The municipal permit requires the City to encourage public reporting of illicit connections and discharges. To that end, the City has designated an individual to receive, record, and respond to calls from the public made through the County's 24 hour hotline (888-CLEAN-LA) or through the City's own reporting number. The City publicizes its reporting hotline telephone number through various sources, including public education materials, newsletters, and its website. In addition, the City encourages its personnel to report any suspect illicit connection or discharge observed while performing routine, day-to-day functions to the ICID coordinator.

2. Field Screening

The municipal permit requires field screening of: (i) open channels by February 3, 2003; (ii) underground pipes in priority areas under 36" in diameter by February 1, 2005; and (iii) underground pipes with a diameter of 36 inches or greater by December 12, 2006.

Field screening *open channels* involves visual observations for suspect connections. Generally, suspect connections include pipes or outlets that show unusual staining or are a suspected of being a conduit for an illicit discharge (e.g., any fluid that is colored, turbid, or has an odor). Open channel field screening only affects those municipalities that own open channels. The City is not among them.

Field screening of *underground pipes* in priority areas can be achieved through a variety of ways, including but not limited: (i) video reconnaissance; (ii) random sampling of catch basins to detect flowing illicit discharges and tracing the discharge to the source (in accordance with Federal storm water regulations

specified under 40 CFR, 122.26)[1]; (iii) interviews with storm drain maintenance personnel regarding the possible existence of suspect connections; and (iv) industrial and commercial inspections that resulted in the detection of suspect or actual illicit connections (e.g., floor drains connected to a catch basin).

3. Terminating the Connection

The municipal permit requires that an investigation be conducted within 21 days to determine the source of the connection, the nature and volume of discharge through the connection, and the party that is responsible for the connection. Once the connection and responsible party is identified, the City has 180 days to terminate the connection. Terminating a connection includes but is not limited to physically removing the connection or capping it at either end. An illicit connection may also be terminated by eliminating the source of the illicit discharge.

4. Reporting Requirement/Procedure

Upon receiving a report of a suspected or actual illicit connection the ICID coordinator shall record the date, time, and other basic information on the IDEAS report form. The City's policy is to initiate an investigation of a reported illicit connection within 2 hours after the report is received. The collected information is also to be used for reporting illicit connection-related information to the regional board through the annual report, which requires the following:

- The number of illicit discharge identified
- The number of illicit discharges investigated
- The number of suspected illicit discharges that were investigated but were found to be exempted under the municipal permit or other NPDES storm water permit

[1] Results of a field screening analysis for illicit connections and illegal dumping for either selected field screening points or major outfalls covered in the permit application. At a minimum, a screening analysis shall include a narrative description, for either each field screening point or major outfall, of visual observations made during dry weather periods. If any flow is observed, two grab samples shall be collected during a 24 hour period with a minimum period of four hours between samples. For all such samples, a narrative description of the color, odor, turbidity, the presence of an oil sheen or surface scum as well as any other relevant observations regarding the potential presence of non-storm water discharges or illegal dumping shall be provided. In addition, a narrative description of the results of a field analysis using suitable methods to estimate pH, total chlorine, total copper, total phenol, and detergents (or surfactants) shall be provided along with a description of the flow rate. Where the field analysis does not involve analytical methods approved under 40 CFR part 136, the applicant shall provide a description of the method used including the name of the manufacturer of the test method along with the range and accuracy of the test. Field screening points shall be either major outfalls or other outfall points (or any other point of access such as manholes) randomly located throughout the storm sewer system by placing a grid over a drainage system map and identifying those cells of the grid which contain a segment of the storm sewer system or major outfall. The field screening points shall be established using the following guidelines and criteria: (1) A grid system consisting of perpendicular north-south and east-west lines spaced 1/4 mile apart shall be overlayed on a map of the municipal storm sewer system, creating a series of cells; (2) All cells that contain a segment of the storm sewer system shall be identified; one field screening point shall be selected in each cell; major outfalls may be used as field screening points.

. The number of illicit connections that conveyed illicit discharges that were terminated

- The number of illicit connections that were removed
- The number of illicit connections that resulted in enforcement action
- The number of illicit connections that resulted in other actions

IV. **Illicit Discharge Detection and Elimination Requirements**

The City is required to terminate illicit discharges reported to it from the public or from City personnel.

1. Definition of an Illicit Discharge

An illicit discharge is defined under Section 21.03.09 of the City's storm water ordinance as "the entry of any material other than storm water {to the MS4} unless such discharge is exempted under the municipal NPDES permit, is allowed under a separate NPDES permit, including but not limited to a point source permit, a General Industrial Activity Storm Water permit, or General Construction Activity Storm Water permit, or is allowed by the Executive Officer." The City's definition of an illicit discharge is based on the definition provided in the Los Angeles County Municipal Storm Water NPDES permit ("municipal permit"). The City's reference to "other than storm water" effectively means the same thing: namely, non-storm water discharges that are not exempted under an NPDES storm water permit.

Included in the City's definition of an illicit discharge are any accidental spills occurring on a street or other public right of way which enter a catch basin. However, if a spill does not enter the catch basin or storm drain it will not be considered an illicit discharge, but instead will be recorded as a spill for internal purposes using the IDEAS report.

2. Exempted Discharges

The municipal permit allows the discharge of certain categories of non-storm water. They include: (1) natural springs and rising ground water; (2) flows from riparian habitats or wetlands; (3) stream diversions, permitted by the State Board; (4) uncontaminated ground water infiltration [as defined by 40 CFR 35.2005(20)]; (5) flows from emergency fire fighting activity; (6) reclaimed and potable landscape irrigation runoff; (7) potable drinking water supply and distribution system releases (consistent with American Water Works Association guidelines for dechlorination and suspended solids reduction practices); (8) drains for

foundations, footings, and crawl spaces; (9) air conditioning condensate; (10) dechlorinated/debrominated swimming pool discharges; (11) dewatering of lakes and decorative fountains; (12) non-commercial car washing by residents or by non-profit organizations; and (13) sidewalk rinsing.

3. Accidental Spills

In addition, discharges associated with accidental spills to the street or gutter including releases from vehicles, are only considered illicit discharges if the material enters a catch basin or storm drain. Such illicit discharges shall be reported on the IDEAS report.

4. Terminating the Discharge

The City is required by the municipal permit to investigate reports of illicit discharges "as soon as practicable." Upon visual verification of the illicit discharge, designated personnel City Staff shall prevent the discharge from entering the catch basin. Generally, any abnormal appearance of water in the gutter such as or color (e.g., green, brown, etc.), odor, turbidity, floatable material, or residue (e.g., oil sheen that is rainbow-like in appearance) is an indicator of an illicit discharge. Such discharge should be prevented from continuing to enter the catch basin. Typically this can be accomplished by blocking the catch basin inlet with sand bags or any device that would prevent entry of the discharge. If necessary, City personnel shall also remove any material left in the gutter (e.g., paint, oil, etc.). The next step is to terminate the source of the discharge (e.g., an individual dumping or flushing material into the MS4). If the source is coming from a curb outlet that appears to be associated with a building, City personnel shall notify the owner operator of the building or business that the illicit discharge must be terminated.

5. Reporting Procedure

Reports of illicit discharges and spills from the public or City employees are to be directed to the City's ICID Coordinator. The ICID Coordinator is responsible for (1) recording the report; (2) dispatching appropriate City personnel to the scene of the reported discharge or spill; and (3) recording how the problem was resolved. The information is used for internal purposes and for reporting to the regional board on an annual basis. The annual report is the instrument that the regional board uses to evaluate the City's performance in meeting municipal NPDES permit requirements. With respect to illicit discharges, the City is required to record the following information in its annual report:

- The number of illicit discharges that were reported during the permit year (coincides with the fiscal year)
- The number of illicit discharges that were discontinued, cleaned-up and the source of the discharge was identified

- The number of suspected illicit discharges that resulted in being non-illicit discharges or were not present at the time of observation

- The number of illicit discharges that were cleaned-up but the source could not be identified

- The number of suspected illicit discharges that were found to be exempted

- The number of suspected illicit discharges that were in compliance and the source identified